

WHAT IS CLAIMED IS:

1. A method of inspecting a target object to be inspected, comprising the steps of:

bringing about a fritting phenomenon in a part of the insulating film formed on an inspection electrode of the target object to be inspected so as to break a part of the insulating film;

bringing an inspecting probe into electrical contact with the surface of a part of the inspection electrode, the insulating film of the part of the inspection electrode having been broken by the fritting phenomenon; and

inspecting the electrical characteristics of the target object by using a tester connected to the inspecting probe.

2. The inspection method according to claim 1, wherein said step of breaking a part of the insulating film comprises the steps of:

bringing a probe into contact with the inspection electrode of the target object to be inspected; and

applying a voltage between the probe and the inspection electrode so as to bring about the fritting phenomenon in the insulating film formed on the surface of the inspection electrode.

3. The inspection method according to claim 1, wherein said step of breaking a part of the insulating film comprises the steps of:

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the step of electrically separating the probe not utilized as an inspecting probe, from the inspection electrode.

7. The inspection method according to claim 6, wherein said separating step is performed by utilizing at least one of a piezo element, a bimetal, and an electrostatic element.

8. An inspection apparatus of a target object to be inspected, comprising:

a power source circuit for applying a voltage to a part of the insulating film formed on an inspection electrode of the target object so as to form a predetermined potential gradient in at least a part of the insulating film, a fritting phenomenon being formed in the insulating film by the predetermined potential gradient so as to break a part of the insulating film;

an inspecting probe that is brought into electrical contact with the surface of a part of the inspection electrode, the insulating film of the part of the inspection electrode having been broken by the fritting phenomenon; and

a tester connected to the inspecting probe so as to inspect the electrical characteristics of the target object to be inspected.

9. The inspection apparatus according to claim 8, further comprising a current limiter for limiting the current flowing between the probe and the inspection

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10. The inspection apparatus according to claim 8,  
wherein said current limiter for forming a  
predetermined potential gradient in at least a part of  
the insulating film comprises:

10 a power source circuit for applying a voltage between the first probe and the second probe, said voltage serving to bring about a fritting phenomenon in the insulating film formed on the surface of the inspection electrode.

12. The inspection apparatus according to claim 8,  
20 further comprising a controller for controlling the  
power source circuit, and a communication circuit for  
connecting the controller to the tester.

14. The inspection apparatus according to

claim 13, wherein said current limiter for limiting the current flowing between the probe and the inspection electrode is incorporated in the tester.

15. The inspection apparatus according to claim 13, wherein said power source circuit for forming a predetermined potential gradient in at least a part of the insulating film comprises:

a first probe and a second probe, which are brought into contact with the inspection electrode of the target object to be inspected; and

a power source for applying a voltage between the first probe and the second probe, said voltage serving to bring about a fritting phenomenon in the insulating film formed on the surface of the inspection electrode.

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